

**WE CLAIM:**

1. A method for treating a patient that has osteoporosis and is being administered cyclase activating parathyroid hormone (CAP) or analogues thereof comprising also administering a cyclase inhibiting parathyroid hormone peptide (CIP) having an amino acid sequence from between (SEQ ID No.1 [PTH<sub>2-84</sub>]) and (SEQ ID No. 2 [PTH<sub>34-84</sub>]) or a conservatively substituted variant thereof exhibiting parathyroid hormone (PTH) antagonist activity in a therapeutically effective, but non-toxic amount that reduces the occurrence of hypercalcemia or osteosarcoma in the patient resulting from the administration of CAP.

2. The method of Claim 1 wherein the peptide has an amino acid sequence from between (SEQ ID No.3 [PTH<sub>3-84</sub>]) and (SEQ ID No. 4 [PTH<sub>28-84</sub>])

3. The method of Claim 1 wherein one determines the amount of CAP and CIP present in the patient.

4. The method of Claim 3 wherein the CIP administration is performed in a pulsatile manner.

5. A method for treating a patient that has osteoporosis comprising administering a cyclase inhibiting parathyroid hormone peptide (CIP) having an amino acid sequence from between (SEQ ID No.1 [PTH<sub>2-84</sub>]) and (SEQ ID No. 2 [PTH<sub>34-84</sub>]) or a conservatively substituted variant thereof exhibiting parathyroid hormone (PTH) antagonist activity in a therapeutically effective, but non-toxic amount that reduces the occurrence of hypercalcemia or osteosarcoma in the patient resulting from the administration of CAP.

6. The method of Claim 5 wherein the peptide has an amino acid sequence from between (SEQ ID No.3 [PTH<sub>3-84</sub>]) and (SEQ ID No. 4 [PTH<sub>28-84</sub>])

7. The method of Claim 5 wherein one determines the amount of CAP and CIP present in the patient.

8. The method of Claim 7 wherein the CIP administration is performed in a pulsatile  
5 manner.

2007-09-14 14:00:00